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### **REMARKS**

This is a full and timely response to the non-final Office Action mailed by the U.S. Patent and Trademark Office on April 19, 2006. Upon entry of the foregoing amendments, claims 1-18 remain pending in the present application. Claims 1, 5, 6, 9, 13, and 15 have been amended. The subject matter of claims 1, 5, 6, 9, 13 and 15 is supported in at least paragraphs 40-42 of Applicant's original specification. Accordingly, no new matter is added to the present application. In light of the foregoing amendments and following remarks, Applicant requests reconsideration of the application and pending claims.

#### **I. Claim Rejections Under 35 USC § 102– Claims 1-5**

##### **A. Statement of the Rejection**

Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,290,036 to Moulding (hereafter *Moulding*).

##### **B. Discussion of the Rejection**

Applicant respectfully submits that independent claim 1, as amended, is patentable for at least the reason that the cited reference fails to disclose, teach, or suggest each feature in the claimed method for filtering a received signal in a wireless receiver. Applicant further submits that independent claim 5, as amended, is patentable for at least the reason that the cited reference fails to disclose, teach, or suggest each feature in the claimed low-noise filter.

It is well established that “anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 Fed 2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). The test is the same for a process. Anticipation requires identity of the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. *See, e.g., Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc.*, 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995).

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Accordingly, the single prior art reference must properly disclose, teach or suggest each element of the claimed invention.

#### 1. Claims 1-4

Regarding independent claim 1, *Moulding* fails to disclose, teach, or suggest at least Applicants' claimed step of "inverting the impedance of the received signal using an inductance applied at the output of the amplifier without interfering with the function of the amplifier." Consequently, *Moulding* does not anticipate Applicant's claimed method.

In contrast with Applicant's claimed method, *Moulding* (FIGs. 4-6) apparently discloses filter circuits that apply a simulated inductance in a negative feedback path to an input of amplifier 13. *Moulding* describes the circuit as follows,

FIG. 4 shows a second embodiment of the invention in which the simple voltage amplifier 9 of FIG. 3 has been replaced by a voltage amplifier arrangement comprising the combination of a voltage-controlled current source 10 and a load resistor 12. The input terminal 1 is now connected to the non-inverting input of a differential voltage amplifier 13, the non-inverting output of which is coupled to the port 8 of gyrator 5 and to the output terminal 3. The common point of the non-inverting output of source 10 and the load resistor 12 is connected to the inverting input of amplifier 13. The load resistor 12, i.e. the output of voltage amplifier arrangement 10, 12, is thus connected in series with the signal path from input terminals 1, 2 to the input of amplifier 13, i.e. in series with the input signal path through (inductive) port 8. It will be seen moreover, that the output of arrangement 10, 12 is connected in the series arrangement, effectively constituted by said output, the port 8 and the capacitor 11, in such a sense such that, within this series arrangement, the signal voltage occurring across said output when a signal voltage is applied across terminals 1 and 2 will be in phase with the voltage occurring across port 8. Thus again the voltage amplifier arrangement 10, 12 effectively constitutes a positive inductance in the input signal path to the inductive port 8, i.e. a filter arrangement the response of which corresponds to that of the arrangement of FIG. 1 has again been realised using only one capacitively-loaded gyrator.

*Moulding* column 5, line 42 – column 6, line 2. (Emphasis added)

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*Moulding* is entirely silent regarding circuit arrangements wherein the inductance does not interfere with the function of the amplifier. Stated another way, *Moulding* applies the output of the simulated inductance (i.e., the output of amplifier 10) to the inverting or negative input of amplifier 13. Accordingly, *Moulding* cannot anticipate Applicant's claim 1, as amended, for at least the reason that the application of the inductance to an input of the amplifier directly contradicts Applicant's claim 1, which includes "inverting the impedance of the received signal using an inductance applied at the output of the amplifier without interfering with the function of the amplifier." Consequently, Applicant submits independent claim 1 is allowable over *Moulding* and respectfully requests that the rejection of claim 1 be withdrawn.

Because independent claim 1 is allowable, dependent claims 2-4, which depend directly or indirectly from claim 1, are also allowable. See *In re Fine*, 837, F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, Applicants respectfully request that the rejection of claims 2-4 also be withdrawn.

## 2. Claim 5

Concerning independent claim 5, *Moulding* fails to disclose, teach, or suggest Applicant's claimed low-noise filter for a wireless receiver, which includes "an impedance inverter applied at the output of the amplifier and configured to transform inductance applied to a received signal to a capacitance without interfering with the function of the amplifier." Consequently, *Moulding* does not anticipate Applicant's claimed low-noise filter.

As shown above, *Moulding* cannot anticipate Applicant's claim 5, as amended, for at least the reason that the application of the inductance to an input of the amplifier directly contradicts Applicant's claim 5, which includes an impedance inverter that transforms inductance applied to a received signal to a capacitance without interfering with the function of the amplifier.

Accordingly, Applicant submits independent claim 5 is allowable over *Moulding* and respectfully requests that the rejection of claim 5 be withdrawn.

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## II. Response to 35 U.S.C. § 103 Rejections – Claims 6-18

### A. Statement of the Rejections

Claims 6-8 presently stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Moulding* in view of U.S. Patent No. 6,026,286 to Long (hereafter *Long*).

Claims 9 and 13-18 presently stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Moulding* in view of U.S. Patent No. 6,906,584 to Moffat (hereafter *Moffat*).

Claims 10-12 presently stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Moulding* and *Moffat* in view of *Long*.

### B. Discussion of the Rejections

Applicant respectfully submits that independent claims 5, 9, 13, and 15, as amended, are each patentable for at least the reason that the cited references (alone or in combination) fail to disclose, teach, or suggest each feature in the amended claims.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Accordingly, the prior art must properly disclose, teach or suggest each element of the claimed invention.

#### 1. Claims 6-8

Regarding Applicant's dependent claim 6, the proposed combination of *Moulding* and *Long* fails to disclose, teach, or suggest a filter that comprises "an open circuit between the impedance inverter and an input of the amplifier."

In contrast with Applicant's claimed filter, both *Moulding* and *Long* (see FIGs. 4, 5 and 7 of *Long* and FIGs. 4-6 of *Moulding*) disclose circuit arrangements with reactive elements (inductors or

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simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant's claimed filter, which recites "an open circuit between the impedance inverter and an input of the amplifier." Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant's amended dependent claim 6. Consequently, Applicant submits dependent claim 6 is allowable over the proposed combination and respectfully requests that the rejection of claim 6 be withdrawn.

Because dependent claim 6 is allowable, dependent claims 7 and 8, which depend directly or indirectly from claim 6, are also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claims 7 and 8 also be withdrawn.

## 2. Claim 9

Regarding Applicant's independent claim 9, the proposed combination of *Moulding* and *Moffat* fails to disclose, teach, or suggest a portable transceiver "wherein the impedance inverter is applied at an output of the amplifier such that an open circuit exists between the impedance inverter and an input of the amplifier."

*Moffat* apparently discloses a switchable gain amplifier that produces a high-pass filter pole. Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant's portable transceiver, which corrects DC offsets by using "an open circuit . . . between the impedance inverter and an input of the amplifier."

In further contrast with Applicant's claimed filter, *Moulding* (see FIGs. 4-6) discloses circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant's claimed filter which recites "an open circuit between the impedance inverter and an input of the amplifier." Accordingly, the proposed combination of *Moulding* and *Moffat* would not produce Applicant's claimed portable transceiver.

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Thus, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant's amended claim 9. Consequently, Applicant submits independent claim 9 is allowable over the proposed combination and respectfully requests that the rejection of claim 9 be withdrawn.

### 3. Claims 13 and 14

Concerning Applicant's claims 13 and 14, the proposed combination of *Moulding* and *Moffat* fails to disclose, teach, or suggest a portable transceiver that comprises "means for inverting the impedance of the received signal at the output of the amplifying means to transform inductance applied to a received signal to a capacitance, wherein the means for inverting impedance of the received signal does not affect the means for amplifying the baseband signal."

*Moffat* apparently discloses a switchable gain amplifier that produces a high-pass filter pole. Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant's portable transceiver, which "does not affect the means for amplifying the baseband signal."

In contrast with Applicant's claimed filter, *Moulding* (see FIGs. 4-6) discloses circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant's claimed portable transceiver, which recites "the means for inverting impedance of the received signal does not affect the means for amplifying the baseband signal." Accordingly, the proposed combination of *Moulding* and *Moffat* would not produce Applicant's claimed portable transceiver.

Thus, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant's amended claim 13. Consequently, Applicant submits independent claim 13 is allowable over the proposed combination and respectfully requests that the rejection of claim 13 be withdrawn.

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Because independent claim 13 is allowable, dependent claim 14, which depends from claim 13, is also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claim 14 also be withdrawn.

#### 4. Claims 15-18

Regarding Applicant's claims 15-18, the proposed combination of *Moulding* and *Moffat* fails to disclose, teach, or suggest a system for removing direct current (DC) offset from a received signal, comprising "a gyrator-generated inductance applied at the output of the variable gain amplifier, the gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance without interfering with the function of the variable gain amplifier."

Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant's system for removing DC offset from a received signal, which includes "gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance without interfering with the function of the variable gain amplifier."

In contrast with Applicant's claimed filter, *Moulding* (see FIGs. 4-6) discloses circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant's claimed portable transceiver, which recites "the gyrator-generated inductance configured to transform inductance present at the output of the variable gain amplifier to a capacitance without interfering with the function of the variable gain amplifier." Accordingly, the proposed combination of *Moulding* and *Moffat* would not produce Applicant's claimed system.

Thus, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant's amended claim 15. Consequently, Applicant submits independent claim 15 is allowable over the proposed combination and respectfully requests that the rejection of claim 15 be withdrawn.

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Because independent claim 15 is allowable, dependent claims 16-18, which depend either directly or indirectly, from claim 15, are also allowable. *See In re Fine, supra*. Accordingly, Applicant respectfully requests that the rejection of claims 16-18 also be withdrawn.

#### 5. Claims 10-12

Regarding Applicant's dependent claims 10-12, the proposed combination of *Moulding*, *Moffat* and *Long* fails to disclose, teach, or suggest Applicant's claimed portable transceiver (see independent claim 9 from which claims 10-12 depend) "wherein the impedance inverter is applied at an output of the amplifier such that an open circuit exists between the impedance inverter and an input of the amplifier."

*Moffat* apparently discloses a switchable gain amplifier that produces a high-pass filter pole. Each of the circuits illustrated in *Moffat* comprise switched elements at the input to amplifiers (22, 24). The application of switching signals and switched elements at the input to an amplifier teaches away from Applicant's portable transceiver, which corrects DC offsets by using "an open circuit . . . between the impedance inverter and an input of the amplifier."

In contrast with Applicant's claimed filter, both *Moulding* and *Long* (see FIGs. 4, 5 and 7 of *Long* and FIGs. 4-6 of *Moulding*) disclose circuit arrangements with reactive elements (inductors or simulated inductors) in a feedback path coupled to an amplifier input. The application of a feedback signal at an input to an amplifier directly contradicts Applicant's claimed portable transceiver, which recites "the impedance inverter is applied at an output of the amplifier such that an open circuit exists between the impedance inverter and an input of the amplifier." Accordingly, the proposed combination fails to establish a *prima facie* case of obviousness with respect to Applicant's amended independent claim 9. Consequently, Applicant submits dependent claims 10-12 are allowable over the proposed combination and respectfully requests that the rejection of claims 10-12 be withdrawn.



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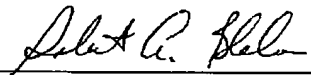
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**CONCLUSION**

In summary, Applicant respectfully requests that all outstanding claim rejections be withdrawn. Applicant respectfully submits that presently pending claims 1-18 are allowable and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comment regarding the Applicant's response or believe that a teleconference would expedite prosecution of the pending claims, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

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